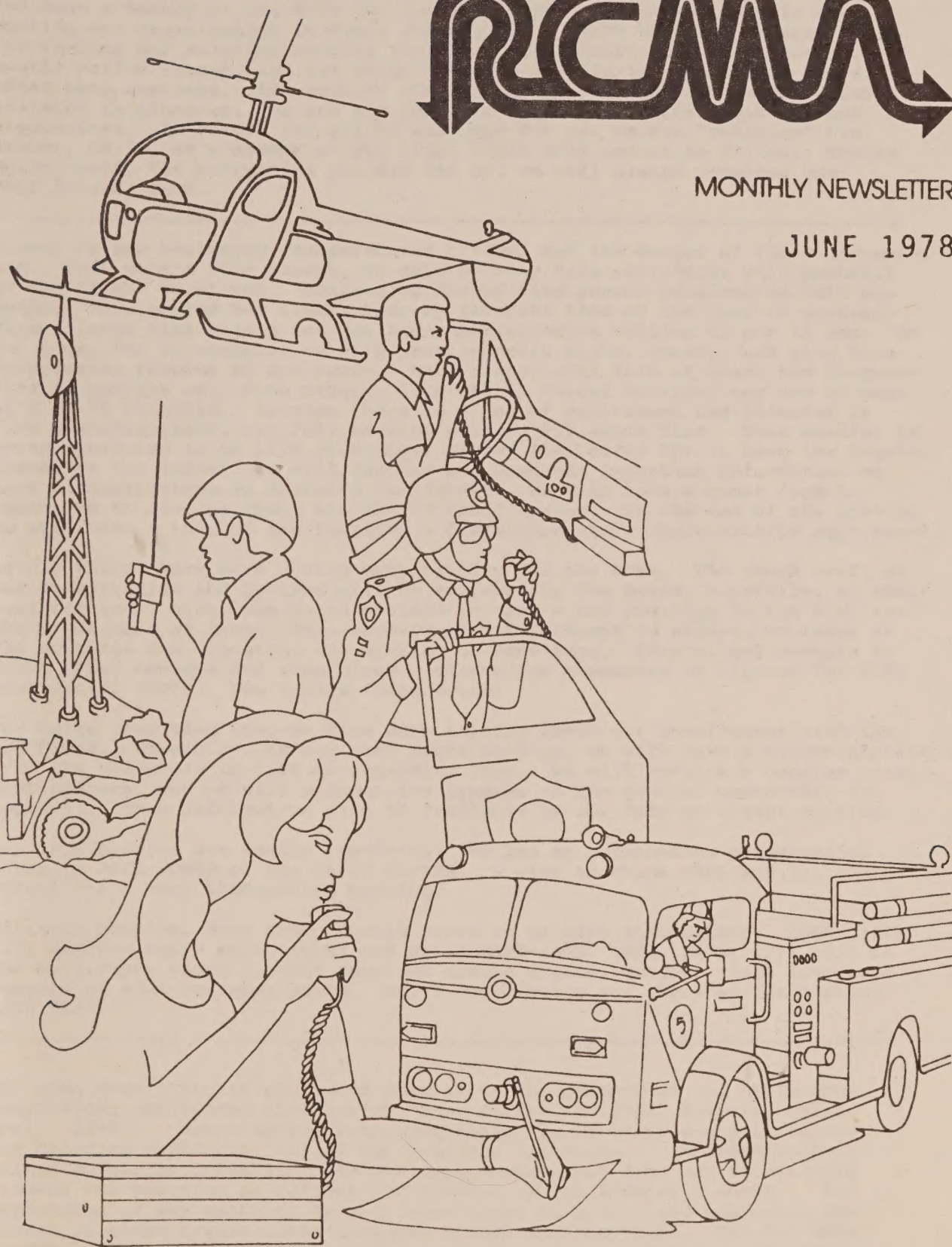


RCMA

MONTHLY NEWSLETTER

JUNE 1978



July 15, 1955

* * DEDICATION * *

May 26, 1978

This month's Newsletter has been dedicated to JEFF SCHAEFER (OR55). JEFF had been a member of the RCMA for over two years. He worked hard in supporting our organization in every way he could. JEFF was even responsible for finding our existing meeting facility. JEFF monitored many agencies, mostly police though, and was quite knowledgeable in the monitoring field. After many meetings, JEFF used to stay around talking to other members and assisted in clean-up. We are all going to miss his familiar voice at our discussions. In return for all he has done for us, we are "retiring" his number, OR-55, as a member of our club. That void cannot be filled. Thanks again, Jeff, for everything you did for us, we will always remember you. Your friend, Dave.

Summer is now beginning, temperatures rising, and the danger of fires increasing. This year's fire season, as said by many fire officials, will probably be one of the worst yet. Monitoring during fire season promises no dull moments. This period has always been my favorite time of the year to monitor. When a large fire breaks out you have many agencies rolling to put it out. In our area, for an example, we will have federal, state, county, and city fire departments respond to one scene. Each agency will have at least two frequencies to operate on. Some others, like the US Forest Service, may use as many as 5 to 10 channels. Because there is a lot of excitement and interest in fire communications, our July meeting will be all about fire. That meeting is being scheduled to be held at Klinger Center (LA County FD) in East Los Angeles. There, at the center, we will discuss and hand out important information on fire communications in Southern California. We will have a guest from LA County FD to discuss their new UHF "T Band" system. At the end of the meeting we will have a tour of the facility & dispatch center. More details next month.

Lately things have been moving very rapidly for the RCMA. The rough draft of our constitution and by-laws will be reviewed by the board, hopefully, at their next meeting. Also, the board decided to open a new position in the RCMA staff for a Sergeant at Arms. This individual will attempt to sign-in everyone at the meetings and encourage the wearing of name tags. This allows members to greet other members and also gives a chance for newcomers to sign-up for RCMA membership. (NOTE: See inside front cover)

For quite some time now, we have been talking about our involvement with the Red Cross. Hopefully, at our next board meeting, we will have a representative from the Red Cross to talk to regarding this. We will outline a program using RCMA members, and we will present the program to the general membership for approval. More information will be available by our July or August meeting.

Our last meeting was really something! We had an outstanding presentation given by PAUL HOWER of the HAPPY FLYERS. I wish to thank PAUL and the HAPPY FLYERS for a very interesting meeting.

Our next meeting, June 16th, should prove to be very informative. CHUCK (OR1) will discuss radio sensitivity and Dr. ROBERT (BOB) BECK (LA29) will talk on the mysterious radio signals reported around Eugene, Oregon. Both have been members of RCMA for many years. So, I hope to see you there at the meeting. DAVE (LA1)

The RCMA Newsletter is published monthly by the members of the RADIO COMMUNICATIONS MONITORING ASSOCIATION, Post Office Box 4563, Anaheim, California 92803. Subscription rate/membership fee is \$6.00 per year for US and Canadian residents; \$14.00 for overseas residents. Information contained herein is primarily obtained from members and does not necessarily present the position or reflect the opinion of the RCMA as a whole. Reproduction of any material in this Newsletter is authorized providing the source is given credit (this excludes direct photocopying). THE BAY AREA SCANNERS CLUB is specifically welcome to use material from the RCMA NEWSLETTER. JUNE 1978 ISSUE 6 VOLUME IV (COPY NUMBER XXX)



A private investigator from Redondo Beach (CA) and his wife were accused by a Los Angeles federal grand jury Monday of intercepting the radio communications of law enforcement agencies and then tipping suspects to ongoing surveillance of their activities.

The six-count indictment accuses the pair of conspiring to possess narcotics with intent to distribute, theft of government property and intercepting and divulging the radio communications of DEA agents and Los Angeles Police Department officers.

DEA agents were tipped to the existence of the Alexanders' company (the pair operated the "Pacific Law Research Center") by an unnamed individual who allegedly received a phone call from (Mr) Alexander telling him DEA agents had taken down his license number because of his presence at the scene of a stakeout of a potential narcotics deal.

In fact, the individual called had nothing to do with the narcotics deal and DEA agents realized Alexander only could have known about the inquiry from monitoring their radio transmissions.

Agent Clayton (DEA), in an undercover capacity, then called Alexander and implied he was involved in the narcotics deal being monitored by DEA and owed Alexander a favor (for the tip).

Alexander, in subsequent contacts with Clayton, allegedly detailed how he had the capacity to monitor DEA, Customs, FBI, Treasury, and other law enforcement "all day long" and there is "not a -- thing they can do about."

Alexander, who is in custody pending \$100,000 bond, then reportedly plotted with Clayton to steal the load of hashish and cocaine that was the subject of the DEA surveillance in which Clayton expressed interest. EXCERPTS FROM THE LOS ANGELES TIMES

The US Department of Defense (DOD) has come out in support of a Civil Preparedness Radio service with access to the high frequency band (HF). This backing is very significant for the Associated Public-Safety Communications Officers (APCO) petition to the FCC for rules to explore the establishment of such a service. LLOYD(CA-OR89)

Avalon, CA and Santa Catalina Island, on which Avalon is located, have gone from the oldest telephone system in the vast Bell System to one of the first international dialing and three-digit emergency (911) networks in the state. One day a resident had to pick up the phone and ask the operator for any and everything--today all they have to do is dial anywhere in the world. And, if they need emergency services a quick 9-1-1 will get fire, police, or medical personnel instantly. The same 911 system is scheduled to be working in Orange County and the South Bay (Los Angeles county area) and some areas of Northern California in the next few years. RCMA NEWSLETTER STAFF

PDAT? You've heard of MODAT...the Motorola Mobile Digital Message and Signalling system such as is used in Orange County law enforcement and Sunnyvale, CA Police Department. Well now Motorola has one (1) working model of a Portable Digital Data Terminal that is a converted MX-360 with 5 UHF channels one of which is a dedicated data frequency. This little gem (well, maybe not so little) has an entire scaled-down keyboard and a parading display. Parading display (such as used to be used in New York's Times Square to show the news) was determined to be more feasible in a portable than a small CRT. HOWARD (CA-OR100)

Speaking of Motorola's MX-360 (the biggest of their popular MX-series compact, modular-circuitry portables) the Los Angeles Sheriff's Department has several of this type that also have a special conversion...they have twenty (20) channels, digital scramblers built-in, and tone selectors for transmitter/receiver areas. All of the frequencies are in the UHF "T Band" range (470MHz) and they apparently have some type of synthesized crystal arrangement to maintain the small size they have. ERNEST (CA-OR11)

The Electra Company (make of Bearcat scanners), whose parent company the Masco Corporation approached the RCMA a while back with their suggestion of assisting our club in a massive expansion, supported by their "connections" and exhaustive lists of people, have decided to start their own organization.

The RCMA, at the time, voted down such a move as being too commercial. We did not and still do not believe that any monitor club can be effective or totally responsive to its members when backed physically by the manufacturer of the very product that the organization purposes center upon. So they have formed the Scanner Association of North America (SCAN as they call it) intended to "...provide a unified voice and forum for scanner owners throughout North America." It is interesting to note that the new club's address is the same as REACT International, a worldwide CB emergency monitor and activity group, whose international headquarters are located at 111 East Wacker Drive, Chicago, IL 60601. It is beyond our comprehension how such a club will thrive when they won't be able to make honest, unbiased product reviews (even though most of us do consider Bearcat to be tops in many areas), when they have to relay on faulty information like that Betty Bearcat has been giving out lately, and considering the possibility of an underlying tie to Citizens Band which we all know is a potentially deadly combination from past experiences with CB operators and their scanners. RCMA NEWSLETTER STAFF

And, speaking of REACT, what is the Southern California Council of that organization doing in Oceanside, CA on 462.6750MHz with authorization for up to 75 mobiles through a General Mobile Radio Service repeater? KARL (CA-OR61)

We note with interest and apprehension that the City of Torrance, CA has applied for local government authorization for 50+ mobiles and a control point on an 800MHz repeater. When are the manufacturers going to give us something to monitor these frequencies with? Several tow services, and some public safety agencies have or plan to go to this new band this year and there is a growing need for monitoring capability in this range. DAVE (CA-LAL)

At the June 19th meeting of the RCMA, CHUCK(CA-OR1) will give a presentation on sensitivity and selectivity which, after reading his introduction to this subject in this issue's Technical News column, should give us all, experts and laymen, some insight to those little numbers and ratings given our equipment and assist us in choosing radios by quality as well as features and looks. RCMA NEWSLETTER STAFF

Also, BOB (CA-LA) will give a followup on last years talk regarding those strange signals being beamed out of the USSR on Extremely Low Frequencies (ELF) and their potential effects. Also, he might possibly touch on some other subjects that his monitoring has brought to light. There are many wierd things going on out there and BOB has heard most of them. DAVE (CA-LAL)

We would like to take this opportunity to express our sorrow and condolences to the parents of RCMA member JEFF SCHAEFER (CA-OR55). JEFF passed away this past week (May 26). Most of us Orange County members remember JEFF for his origination of the idea to use Mercury Savings (our present meeting place) when the club was getting too big at the old facilities. Also, several of us used to constantly exchange frequencies and unit numbering with him on all the central Orange County information he could obtain from residing in that area and our data from the outlying cities. When he returned to the April meeting (his first in several months) we thought his recent stays in the hospital had been for the better. We observe his passing with surprise and sadness. RCMA NEWSLETTER STAFF

Two regionalized Emergency Medical networks are setup in Northern California. The already existing Emergency Medical Care Council of Northern California which covers Butte, Glenn, Lassen, Modoc, Plumas, Shasta, Siskiyou, Tehama, and Trinity counties with area-wide repeaters on Med 8 (463.1750MHz) and capabilities on the other Med frequencies and the newly established Sierra-Sacramento Valley Emergency Services Agency covering El Dorado, Nevada, Placer, Sacramento, Sierra, Sutter, Yolo, and Yuba counties on the same frequencies as well as as EMS "Dispatch 1 & 2" (462.9500 & 462.9750MHz). MIKE (CA-OR5)

The FCC has proposed to change Maritime Mobile Service (Marine Band) commercial Ch 77 to a "port area frequency" and make it "available only to pilots for communications regarding the movement and docking of vessels in major port areas." The power limitations, under this proposal, would be coast stations, 1 watt (not to exceed 10 watts under any circumstances) for normal conditions, and vessels, 1 watt except in emergencies. This change is desired by both the FCC and pilots in harbors who complain that high power transmitters using the channel in its present capacity of commercial inter-ship communications seriously interferes and hampers the safety of docking. CHUCK(CA-OR71)



Digitized by the Internet Archive
in 2025 with funding from
Amateur Radio Digital Communications, Grant 1659

At the May meeting of the Main Chapter of the RCMA, we were treated to one of the best presentations in most of our recent memories. PAUL HOWER of the HAPPY FLYERS talked, showed slides, gave technical demonstrations, and generally captivated everyone present.

The slides were from the HAPPY FLYERS and another organization and kept most of us there in our chairs until long after we usually leave. The first slide production concerned the role the HAPPY FLYERS and other organizations play in the searching for and rescue of a light plane which has gone down and its ELT (Emergency Locator Transmitter) has been activated. A tape recording told of the cooperation between the many groups involved, both public safety organizations and the private volunteer ones. There was enough radio communications involved to keep our interest and most of us had little knowledge, before that night, of the extent and organization of such activities.

Because of the interest sparked by PAUL in monitoring ELT signals on a volunteer basis, and in the more technical aspects of Radio Direction Finding (DF), enough of the members talked him into showing the HAPPY FLYERS' slide/tape presentation on how DF works and how they have made great steps in mastering the technique of locating the source of radio interference/jamming as well as ELT signals from down aircraft.

PAUL finished up the evening with some demonstration of the actual technique of locating a transmitting device when the signal has been deflected and bounced all over the place sometimes getting weaker and sometimes combining with another deflected or reflected signal to become stronger. The HAPPY FLYERS has designed equipment to assist them in determining which signal is the original one and which ones are deflected/reflected or other mixed signals. They can locate the source one they locate the true signal thus allowing them to find troublemakers jamming a frequency or people in need of help.

All in all, it was an evening that most of us thoroughly enjoyed and won't forget very soon. MIKE (OR5)

The May Board Meeting, held the Monday immediately after the General Meeting, was very short due to everyone having some type of commitments that evening.

Our President, DAVE (LAL) first brought up some minor technical points of change in the Newsletter. (No, they didn't step on our First Amendment rights.) Suggestions were solicited for any major changes or modifications to the Newsletter, though, and everyone, including your Editor, seemed to be very happy with the new format and the progress we are making (did you notice 4 extra pages in May over April's?).

The constitution and by-laws are being written and the Board hopes to have a rough draft for review at the next Board Meeting or very soon thereafter.

As soon as we have these completed and approved we will incorporate the organization with the State of California. That will give us the availability of some activities such as fund-raising, allowing advertising from commercial sources, and taking advantage of some economic cuts allowed to non-profit corporations. MIKE (OR5)

CALENDAR

MONTH DATE	DAY TIME	TYPE SCHEDULED	ORGANIZATION LOCATION
JUN 16	FRI 8:00PM	MONTHLY 3RD FRI	RADIO COMMUNICATIONS MONITORING ASSOCIATION (RCMA) MERCURY SAVINGS & LOAN VALLEY VIEW/LINCOLN, BUENA PARK, CA
JUN 21	WED 7:30PM	MONTHLY 3RD WED	BAY AREA SCANNERS CLUB BERESFORD RECREATIONAL CENTER 27TH/ALAMEDA DE LAS PULGAS, SAN MATEO, CA
JUL 7	FRI 8:00PM	MONTHLY 1ST FRI	RADIO COMMUNICATIONS MONITORING ASSOCIATION (RCMA) -SAN DIEGO CHAPTER-SKIP SANDERS' HOME 2129 CROWNHILL RD, SAN DIEGO, CA

Several topics to discuss this month...

First, I wish express my deepest symphathies to the parents of JEFF SCHAEFER (CA-OR55) in regards to his passing away on the 26th of May. JEFF was a friend of mine and several others in the club. He used to keep track of my varied work hours so he could call me with new frequencies, unit numbers, channel information, etc. And, I used to give him all the new data I could compile. We used to go out after meetings with a few select people and have hot fudge sundaes while we talked sometimes until 2:00 in the morning--just talking radio-talk. When I moved, changed my job, and stopped going to meetings because of my schedule I didn't talk to him much. Then, he was in the hospital for many months. He would call from the hospital and from home to the scanner store that is one of the businesses in the building where I have an office. He really wanted a Bearcat 250 more than anybody I knew. He always checked up on their proposed delivery date(s) and asked a lot of details about this new radio. Sometimes I would go to one of the store phones and we would talk about all of the things we could do with a scanner like that. Then, when I saw him at the April meeting, I just thought his wheel chair was part of the recovery procedures from his hospital stays. We talked then. He took issue on a couple of club items and it seemed to be like it used to be. And, now he's gone. He never got his "ultimate scanner" but he did get some friends. I think the RCMA meant very much to him. His absence will be noticed at club meetings and gatherings.

I wish to thank all of you that are sending in frequencies. The response to the Misc Frequencies column is great! We've a lot of local "experts" out there and a lot of people who can benefit from their knowledge. Let's use this, and the others, column to expedite the exchange of information and also to increase its flow. My personal notebooks are filling up with the stuff you people are providing that gets printed in the Newsletter. I hope everybody else is using some or all of the material included in our recently adopted format. I may never get to go to any of these places but I like to read about other systems and see how other agencies around the country (and world) set up the channels, usages, and designations. I think many of you feel this way, too. Let's keep it up. Thanks, again, to all who have and will contribute. You are the backbone of this publication.

Regarding the new club, SCAN, from the Electra (Bearcat) Company, we are not trying to damage our presently excellent relations with this manufacturer. However, as stated in the News Items section of this Newsletter, we don't think a commercially backed organization will make it. Appearances can be fooling, but I take it as a Bearcat "fan club"--an advertising gimmick. If they really wanted to "provide a uniform voice" for scanner enthusiasts, I think they could provide the RCMA, the oldest and largest (and most powerful) radio monitoring club for scanner owners in the world, support and assistance without any "strings attached". No matter how you look at SCAN, is still a club set up by big business and that big business stands only to gain from such an endeavor. However, the "link" we mentioned to CB and REACT is only an assumption on our part due to the address alone. It could be just a coincidence. Hopefully, as was the intent of the aforementioned article in this issue, they will respond to us with detailed information about their proposed association. The certain members of the RCMA who have sent in for membership have yet to receive any further information about the club than that which was printed in Industrial Communications last month. We will, of course, print any response from either the Electra Company or from the club if we receive anything. I will also extend my apologies if I have erred. My personal feelings on this subject are that we are stronger as a whole, and even if we have to setup chapters all over the country which can cater to local interests and members, we should all be under one main organization and that should be the Radio Communications Monitoring Association. (NOTE: The reference to Betty Bearcat's Frequency Information service was a response requested by several members who have stated as meetings and in letters that the service does not update their information, has not issued new frequency sheets since they started, and that they don't provide system details even to the point of specific channel usage or transmitter types--"you can't tell an input from an output"--leaving one with less data than a regional volume of Police Call. I have seen some good stuff from them but its been over a year since I called or received a sheet from them. As a free service its hard to complain but apparently many members no longer find it "worth it".)

Congratulations on your Newsletter format; it looks professional, and reflects the growth of the association.

I would like to comment on several questions which were offered in the May issue.

The use of the BC-210 as a synthesized signal generator is a clever; it not only can be used as frequency marker for the 225--400mHz band, but has been used as a general-coverage signal generator. The new BC-250 will provide more shielding to reduce radiated interference; the BC-250 is quite a receiver. I had the opportunity for extensive use of this new scanner, as Electra commissioned me (as a freelance writer and communications consultant) to write the owner's manual.

The RS PRO-2001 is a good receiver; if not a little expensive. This Fall, look for two more issues from Tandy: 1 above and 1 below the 2001. Additionally, a new general-coverage shortwave receiver, the DX300, will feature digital readout, and be designed to cut into the market now dominated by Yaesu's FRG-7. Yaesu, however, has also just announced their new FRG-7000, a nice receiver itself.

This brings us to the next question: should RCMA cater to the "HF Utilities" listener? Personally, I see little difference between the 2 hobbyists, as I monitor all frequencies from "DC to Daylight"...roughly 5kHz through 512mHz. The extensiveness of one's listening is primarily gauged by the degree of equipment saturation. There is an enormous abundance of intrigue in the short-wave spectrum: spies, military maneuvers, trans-oceanic telephone, NASA mission support...an infinite array of enticing listening. I receive letters of inquiry from foreign soil where such listening is forbidden. Our country is the most lenient in the world toward monitoring of radio communications.

While VHF-UHF scanner monitoring is necessarily local by nature, the propagation at HF permits us to listen everything from Red Cross relief at an earthquake site, to Defense links of our military command. It is difficult for me to believe that a scanner user who is fascinated by listening to local law enforcement would not be intrigued by monitoring an extensive informational network via shortwave.

Obviously, our association could bite off more than it can chew; the field could become full-blown with articles on computer-assisted monitoring and frequency filing, antenna theory, long-distance VHF-UHF DX-ing, broadcast-band DX-ing, etc. The line probably should be drawn somewhere...but where? Only the membership can determine that by their input...both at club meetings and via this Newsletter!

There are several "utility" clubs...I have never belonged to any...which cater to the shortwave enthusiast. I am not aware that any of them has ever become extensive, and all of which I am aware are stagnant. The reader who commented on his frustration with the World FM/TV DX Association has had a firsthand...and absolutely correct...impression of apathetic leadership. Members soon tire of tedium and lack of direction.

I would like to offer my assistance to the membership in my area of expertise; frequency allocations. I maintain an exhaustive library of discrete frequencies for every radio service and agency. I keep microfiche files from both the FCC and IRAC. I enjoy swapping interesting entries with responsible parties, and only request an SASE to keep my postage down!

May I close by offering my sincere congratulations for the continuing success of a fine organization. BOB (FL)

News from San Diego: the San Diego County Sheriff's Office has got repeaters. The first ones are up and operating. It is really nice to hear the mobile units in San Diego proper from County Sheriff cars patrolling away from the city. Their "Orange" Channel is repeating the mobile frequency (154.0550mHz out/154.9650mHz in) and their "Green" Ch might become a repeater (on Mt. Woodson) repeating a Sheriff VHF "Low Band" channel in South Bay (San Diego County). Eventually, hopefully, all "Low Band" radios will be repeated out on "High Band" giving the SDSO excellent coverage in the desert and rural areas. SKIP (CA-SD2)

I have been an RCMA subscriber for only four months, and I would like to say that I enjoy your publication very, very much. As far as the question of sticking to non-skip communications goes, I wouldn't mind setting aside a section in the newsletter for the 2-30 MHz. frequency range, as long as it is for two-way communications only. MARK HOLMES (IL8)

PLEASE, go back to original format with monthly newsletter. Print is so small we can hardly read it. Friends who were going to subscribe are no longer interested. Thank you. P.E. GISE (LA110)

Thought I'd put in my worth about topics discussed in the April and May Newsletters. First, the new look of the Newsletters are very much appreciated. Keep it up!

Now, as for the issue of whether Low Band VHF "Skip" should be allowed as a part of the RCMA and its newsletter. I say an emphatic YES. Guys--lets face it--it's there! You can't stop it from happening. Every summer from mid-May to mid-August Sporadic-E (Es) occurs and so far I've heard Louisiana, Mississippi, Texas, and Kansas (and that's only within the last ten days). I find it an exciting integral part of the hobby. I know that is in part why I enjoy it so much. And for more unusual, longer distance "DX" you should try "F-2" skip for a try! In early March 1978, I had the unique pleasure (as did others in the east) to log your wonderful state. It was mostly MUFs (Maximum usable frequencies) of about 36 MHz with LA and So. Cal. Mobile Phone calls and a couple of days with MUFs up to at least 40 MHz and LA Sheriff (?) calls! I was also lucky enough to hear some South American radio pagers as well. That's due in part with the ever-increasing sunspot activity since early 1978.

If you listen to short wave frequencies as I do, and tune to WWV at 18 minutes after the hour, then you realize that the sun spots have increased dramatically since mid-April. And we still have 1980 to look forward to! So I say -- let Low Band Skip in as part of the RCMA policy. What harm will it do? If there are as many HAMS and SWLs/DXers in RCMA as I think there are, then they should welcome reports to that effect.

Speaking of short waves, there are many many clubs that cater to those frequencies (and I belong to three of them) so PLEASE, let's not have the RCMA become another one! Let's all keep RCMA the UNIQUE club it has come to be known. However, an occasional bit of news, when warranted, would be welcomed on two-way HF communications. But remember guys, if you want SWL news, turn to NASWA, SPEEDX or even ASWLC! If you want HAM news read QST or 73.

I am not sure about the other radio-related clubs, but most that I know do not charge for listings of items for sale or for help-wanted. How greedy should we want ourselves to become as a club? But, if we should allow charges, let's keep them within reason. Remember - this is only a HOBBY (If some of you are vague about that term, perhaps you should look that one up!)

Well, that's my say on these topics. I may not win any friends by my comments, but thought a member "a little bit away from LA" should put in my 15¢ worth. (With inflation as it is, I'd say 2¢ is worth that much) Continue the good work with the Newsletter, and remember . . . I may hear YOUR state next!! MARK LUCAS (OH1)

"Just wanted to comment on the column in the RCMA Newsletter. I'm also a utility DXer - monitor all freqs from 10khz up to 1000Mhz on SSB, CW, RTTY, FAX, FM, etc...and been doing it for about 20 years. Enjoy the Navy and Coast Guard freqs as well as military air. My equipment includes Drake R4B, R4C, DSR2 for HF with HP counter and spectrum analyzer, RTTY video display from HAL communications. If you decide to put info on this aspect of shortwave listening in the RCMA Newsletter, I will support the column in any way possible." RICK (CAN2)

A few remarks from one of your few Illinois members -- I am proud to be an RCMA new member and have come upon a few new or exciting frequencies in Chicago area. Under new frequencies -- Justice, Ill; Summit, Ill; Hickory Hills, Ill; Willow Springs, Ill -- all on 470.5875 repeater - not published in Police Call Magazine. Also, 152.210 very good for gossip listening for paging and radio-telephone frequencies. Also, Chicago Police Dept. City-wide No. 2 460.175 most exciting.

Have recently purchased the Regency Touch and have found it to be very good in sensitivity but very noisy in the search mode. Has a loud AC hum which interferes with voice modulation in search mode. Has anyone come up with same problem in the club? Took time to give the Regency Co. in Indiana a telephone call and talked to Customer Relations man by name of Wayne Aires and he explained that all ACT-T-16K Regency Touch's are using a lot of high voltage in search mode and are more noisy than Bearcat 210. However, he was very honest and truthful about the problem and very courteous. Thank you for taking me into this very interesting and exciting club. Wait every month for your Newsletter, which is very well written. RON SMITHBERG (IL-009)

In reading your April 1978 newsletter, which I might add is very well done and informative, I did notice in your opening news item on page 2 a published comment by ROBERT (SD13), "Electra is apparently recalling some of their Bearcat 210's manufactured in the first half 1977."

Dave, I don't know the source of Robert's information, but he is sadly mistaken. We have ~~never~~ even discussed a recall nor have we had a reason to discuss such a proposition.

This kind of publicity without checking the facts certainly doesn't lend itself to a consumer's confidence in Electra's product line of scanners.

In this case, I don't see the comment causing a great deal of problems, but I feel I must clear the air on this matter. LETTER TO DAVE (LAL) FROM JAMES B. FARLAND, Nat'l Sales Mgr, ELECTRA CO.

I own a number of receivers, including 3 programmable units, with the capability to monitor as many as 60 channels at any given time. I am also in a position to supply detailed or general information regarding the metro New York area. I would assume that this flow of knowledge could be reciprocal.

If I can be of help, just drop me a note. MICHAEL BOGEN (NY)

In response to the May '78 edition of our Newsletter, in the Editorial page: I think that the new Newsletter format is a step in the positive direction and that it should be kept. Keep up the good work, Staff!

A while back there was an item broadcast over the local radio station which concerned every scanner listener in this town. This incident happened about six months ago. One of the State police officers was on patrol near the outer areas of the Lee-Whiteside Counties, when he started to feel drowsy and sick to his stomach. He radioed for assistance, but none was to be coming. A local scanner listener heard this exchange over his scanner and went to the aid of this officer. It was later learned that this officer suffered carbon-monoxide poisoning from a faulty exhaust manifold, and if it wasn't for this concerned citizen acting fast, this officer would have died. So if you think that all scanner listeners are incompetent, think about this true incident. Since this happened awhile back, exact names and details are somewhat hazy. This story never made any of the local papers.

The trouble with this club is that we have too many "silent majority" members who don't wish to contribute anything. My enjoyment comes from just being able to correspond with others who are interested in the same hobby. After all, you only get out what you put in. I also praise this club for stating an opinion on the new scanners and related products which are being released. I feel it is the purpose of this club to let the other members know what is available and the pros and cons concerning each unit. This should be a guide as to what would be the best buy for the scanner dollar. But, as always, it's YOUR money--spend it any way you wish. Keep up the good work on these product evaluations. To wrap up my letter, I would like to thank all of the people that have corresponded with me through the RCMA: Ken Pehl, Dave Nugent, Iden Rodgers, Bob Leef, Bob Lazich, and anyone who has had the privilege of writing to me for info. These are the backbone of the RCMA and I thank you all. DAVID MC LAREN (ILL2).

On the subject of policy, I think I have to once again reiterate where the RCMA and I stand on the subjects of federal law enforcement frequencies (and related data), local and state narcotics, vice, and Organized Crime channels and information, and law enforcement surveillance/intelligence operations.

RCMA policy, and my own policies, dictate a non-discussion, non-publishing of this type of material. The very first article in this issues' News Items column is an excellent example of what can happen. I also have received two other newspaper articles portraying the same type of activity. And these were only the ones that got caught! I personally have worked at determining if the subjects involved, or their related "lists" of frequencies have come from any source that we are aware of. So far there's no connection between them--of the known federal monitors or the RCMA--that was found. This is becoming a major problem. If it continues, we may be subjected to a variety of scrambling, channel swapping, or even switching bands and radios, such as the Bearcat 250, will just have the frequencies outside of the known ranges that these agencies operate within.

Now I know that many members feel that those among us who do monitor the "special" frequencies of the local and federal law enforcement agencies are snoops and stingy with their information but that's because it took most a long time to find this information. There are no reliable publications listing this type of information (luckily) and it takes long hours of listening, cross-referencing, reading, note-taking, and asking questions of key persons, to find out the data that some members have compiled. To these people, it doesn't seem fair that a newcomer can just ask and be given everything that took so much work to develop. If you are persistent enough, you can find the channels you want, and determine who is using them for what purposes, and you won't have to ask the "experts" in this field to just hand you their treasured notes and lists. To give you a clue, one member who is a very good friend of mine, and only a high school student, has spent whole days in libraries reading official publications, paging through phone books, taping and reviewing tapes of transmissions, studying maps, and searching frequencies without a sophisticated programmable scanner and he has some of the more impressive lists I have seen. All of the supportive data you need to figure out what's going on on a channel is available in books, newspapers, magazines, and on regular broadcast radio and television. All you have to do is have some patience and a real desire to seek and find out what you want to know and keep trying frequencies until you get what you want.

So, the reasons behind our policy are clear, and we just can't except lists for publication, specific requests for specific information in this area, and/or requests for correspondence or exchange of this type of information, ads containing frequencies or references to these frequencies, and any other of this type to be printed in our Newsletter. Besides, we don't need any adverse publicity or bad relations with the agencies utilizing such material.

This goes along with my personal policy of not publishing or "giving away" such things as special unit numbers that operate in the aforementioned capacity and specific things like exact boundaries of regular police beats. Such information can be figured out by a real enthusiast or "buff" but is not the type of data that is necessary to normal citizens monitoring police activities. There is no reason to know what the limits a patrol unit can go when not on a call. Other than for criminal activity, a normal person doesn't need a patrol cars boundaries which gives anyone the knowledge of which areas won't have a unit prowling or cruising through them when the area car is tied up. It's this kind of information, along with the frequencies and details on special or administrative investigative services, that the general public should not have ready access to.

Like I said, if you are really into monitoring, either as a professional or a hobbyist (spelled n-u-t in the cases of some of us) you know the value of this type of material to yourself and to criminals and you'll not only be able to figure it out yourself but you will know how and why to keep it that way...to yourself.

One last note on News Items, and Calendar items, if you find an article, hear a story (as long as its substantiated), know of an event--either past or in the near future--, or got some inside information that anyway relates to our organization, send it in. One of the most difficult tasks I have is locating and copying or rewriting the articles used in these columns; I don't have that many connections to get all of the news in this field. I am perfectly willing to expand either column if enough material is provided. Also, we are getting lots of letters but some are too long or express advertisements please be careful of this and be brief and to the point so we can put more of your thoughts in. See you at the meeting, MIKE (CA-OR5)

TIME SIGNALS IN THE UHF BAND VIA NBS TIME SATELLITES

"As a complement to the present time and frequency services of WWV, WWVH, and WWVB, the National Bureau of Standards (NBS) is now sponsoring a satellite-disseminated time code using the Geostationary Operational Environmental Satellites (GOES) of the National Oceanic and Atmospheric Administration (NOAA). The time code is referenced to the NBS time scale and gives Coordinated Universal Time (UTC). NOAA considers it a permanent feature of the GOES satellites, intended to serve the GOES users. It may, however, be used by others needing a general purpose time reference. The time code is available to the entire Western Hemisphere from two satellites on a near full-time basis.

"The GOES satellites are in orbit 36,000 kilometers above the equator. They travel at about 11,000 kilometers per hour and remain continuously above the same spot on earth. They are thus termed geostationary. Since they always have the same regions of earth in view, they can provide 24-hour, continuous service.

"There are three GOES satellites in orbit, two in operational status with a third serving as an in-orbit spare. The two operational satellites are located at 135° and 75° West Longitude and the spare is at 105° West Longitude.

"The signals phase-shift modulate the carrier and are right-hand circularly polarized. Reception of these signals requires the use of a relatively small antenna and a coherent synchronous digital receiver. Western satellite frequency 468.8250 MHz, Eastern satellite frequency 468.8375 MHz, modulation CPSK ($\pm 60^\circ$), data rate 100 BPS, signal strength (output from isotropic antenna) -139 dBm, coding Manchester, bandwidth 400 Hz.

"The time code is time-division-multiplexed (interlaced) with interrogation messages. Once every half-second, a time code word, 4 bits, is transmitted. A complete time code is transmitted every 30 seconds, beginning on the half-minute, giving day of year, hour, minute, and second.

"Since the GOES time code is transmitted outside the spectrum reserved exclusively for time and frequency broadcasts, it cannot be considered an NBS service in the same sense that WWV, WWVH, and WWVB are services. The 'land-mobile' services and the GOES interrogation channels use the same frequency allocations (468.8250 and 468.8375 MHz), which means the time code may suffer interference from land-mobile transmissions. This is particularly true in urban areas where there is a high density of land-mobile activity. The satellite frequency allocations are secondary to the land-mobile services. Therefore, any such interference must be accepted by the time signal users. Complaints to the FCC will not result in any adjustments in favor of such users." (FROM NBS PUBLICATION TFS-602)

After reading the above don't get all excited and think you can tune in the time whenever you need it. Some of us may be able to receive the transmissions but it does take special equipment to transform their digital code into numbers than can be read.

Iden (R 1)

NEW LAPD COMM SYSTEM

E-Systems, Inc. (NYSE-ESY) announced receipt of a \$9.5 million order from System Development Corporation (SDC) to provide communications equipment and in-vehicle digital terminals for the Los Angeles Emergency Command Control Communications System (ECCCS) project.

The Los Angeles City Council selected SDC of Santa Monica, Calif. for the police communications system in February.

E-Systems Garland (Texas) Division will supply engineering, software and hardware to make operational the city-wide voice communications system, termed the "Master Radio Plan", and the citywide digital communications system, termed the "Mobile Digital Communications" segment.

The Mobile Digital Communications System will utilize E-Systems Digicom (TM) MDT-800 mobile digital terminals installed in police vehicles and operating on standard VHF frequencies for communicating with police officers on patrol. E-Systems will produce more than 850 MDT-800s for this project.

The MDT-800 makes it possible for the police officer to communicate directly with computers located at a Central Dispatch Center. The speed at which information can be obtained is about 30 times faster than data relayed by normal voice communications.

The Master Radio Plan is that portion of the total program which assures the Los Angeles Police Department complete, reliable UHF band voice communications in the sprawling metropolitan area. Receiver and transmitter equipment will be installed at more than 35 locations within the Los Angeles area to provide increased radio frequency (RF) communications coverage over the entire area.

An advanced technology called "simulcast" will be implemented to insure the (11) increased coverage required to support LAPD activities. A network of satellite receivers will be implemented to allow patrol officers to communicate with a new Central Dispatch Center using low powered portable transceivers. A total of 18 UHF channels will be implemented to support LAPD operations. COMMUNICATIONS MAGAZINE -- STEVE (NY6)

UHF MILITARY AIRCRAFT MONITORING

Q. "Concerning the UHF aircraft band, could you please send me an address or information on where I can get a surplus receiver for this purpose?" Guy (IA 2)

A. As far as I know the AN/URR-35 and its predecessor the AN/URR-13 are the best receivers for the listening hobbyist because they are usually available for \$100 or less and can be manually tuned or crystal controlled on one channel at a time by easily changing a front panel crystal. (If anyone already has a URR-35 and wants info on converting to a modern crystal type and needs the address for a source of crystals for about \$5 each, please contact me.) It should be pointed out that these receivers are 7" high, 19" wide & 18" deep, weigh about 55 pounds, and have 21 tubes. It is best to have some electronic knowledge and basic test equipment or know someone who has in order to put and keep such a receiver in good operating order. The receiver alignment (internal adjustments which may or may not be required) is time consuming and often strains one's patience but considering everything the above named receivers are probably the only way to go for this frequency range and at a reasonable price. Also, the receiver has an S-meter and audio output meter and squelch. An instruction book is highly recommended. They sell for about \$10 each. Where to find them --- well, it's not like going to the store to buy a loaf of bread. These receivers are not always available and if they are they may be sold as "serviceable" (working at least to some extent), "repairable" (not working but repairable), or "damaged" (you can figure that it is at least half mashed in and some of the parts might be useable in repairing other sets). First, try the yellow pages under "surplus" and "electronics" (electronic surplus, particularly military electronic surplus). Many libraries and phone companies have many big city phone books that you can use. Give them a try and start writing and/or calling. Also, put an ad in the RCMA Newsletter (free to members) expressing your desire for such a radio. Also, you can try Fair Radio Sales Co., P.O. Box 1105, Lima, Ohio 45802 (419-227-6573), also ask for their catalog. Or, try Anker Electronics, P.O. Box 1001, Wilkes-Barre, PA 18703 (717-824-7859) or J.J. Glass Electronics, 1624 S. Main St., Los Angeles, CA (zip?) (213-749-1179) or Ancom Electronic Corp., 5521 Cleon Ave., No. Hollywood, CA 91601 (213-769-5518). Sometimes they show up in stores that sell used amateur radio equipment. I've seen a couple in the last few years at Henry Radio, 11240 W. Olympic, West Los Angeles, CA (zip?) (213-272-0861). Another good idea for locating such a receiver or other electronic items is to subscribe to "Ham Trader Yellow Sheets". This publication is composed strictly of listings of communications-electronic items wanted and for sale. It comes out every 2 weeks. 7 issues for \$2 or 24 issues for \$6. P.O. Box 311, Sycamore, IL 60178. If you need a manual for a piece of military surplus equipment try Consalvo, 7218 Roanne Dr., Washington D.C. 20021. It is always a good idea to include a SASE with all written inquiries.

UHF AIRCRAFT ANTENNA

Iden (R 1)

A few AT-197A/GR antennas are presently available from Anker Electronics, P.O. Box 1001, Wilkes-Barre, PA 18703, for \$35 each plus about \$4 for UPS. These are used, military surplus, omnidirectional, broadband discone antennas with a 50 ohm impedance used specifically for the UHF aircraft band of 225 to 400 MHz. You probably have seen these antennas on military and civilian control towers among other places. Should you be interested in one of these it might be best to write, or better yet call (717-824-7859) to check for availability and condition of antenna. If you write it will speed the reply to include a self-addressed, stamped envelope (SASE). The above is for information, it is not an advertisement. The antenna also requires an HN type UG-1213/U or UG-59A/U coax connector for RG8/U which runs in the \$7 to \$17 range each depending on the type and source. The antenna mounting bracket that comes with the antenna is designed to mount on a flat vertical service so if it is desired to mount this antenna to a horizontal or vertical pipe some kind of homemade mounting adapter will have to be made. This can consist of a steel or aluminum plate 1/8 x 4 x 6 inches (minimum dimensions) with 7 holes in it (in the right places) and 2 "U" bolts. Alternatives to this antenna are 1) a quarter wave ground plane cut to about 320 MHz (Chris, OR 50, seems happy with this antenna though theoretically it is not a broadband antenna) or 2) a Hustler discone (I have used one with satisfactory results in the 225-400 MHz range). Both alternatives are less expensive and probably less hassle but if you are a purist and want the right military antenna for listening to military aircraft and you want to be the first on your block to have one you should act on this soon. These antennas are usually hard to find. I've been keeping my eye out for one at a reasonable price for about 4 years. I've seen them for \$100. I must add that across the entire band (225-400 MHz) the AT-197 I just received and installed performs dramatically better than my Hustler discone. I used the same test set-up for comparing these antennas as mentioned in the May Newsletter concerning another antenna but this time used a URR-35 receiver.

Iden (R 1)

Many of you have written to the Newsletter with technical information and I really appreciate this input. Please keep it up--we can only benefit by this exchange of info. This month's article was contributed by CHUCK (OR1)

Thanks again. DON (OR14)

SENSITIVITY AND NOISE FIGURE: AN INTRODUCTION

Almost everyone who owns a scanning radio or monitor receiver has at one time or another looked at the specification sheet on their radio to find out what its rated sensitivity was. Some monitoring enthusiasts seem to find a lot of security in seeing a sensitivity rating of 0.5 microvolt for a 10 DB signal-to-noise ratio down on paper, but precious few of them really understand what these impressive figures may or may not mean to them when it comes down to the business at hand---hearing weak radio signals.

To begin with, let's consider that original specification I mentioned a moment ago--0.5 microvolt for 10 DB signal-to-noise ratio. Is this a good rating, a mediocre one, or is it downright lousy? It may provide a convenient way of comparing one receiver to another--for instance, a receiver with a sensitivity rating of 0.5 microvolt for a 10 DB signal-to-noise ratio can logically be assumed to be superior to one with a rating of 0.8 microvolt for the same signal-to-noise ratio--but just how good is that?

Well, what these figures tell us is that if we put a signal of 0.5 microvolt into our sample receiver, it will give us an output 10 DB above the noise, which is a convenient reference to use because we're pretty sure we can hear that. FM receivers usually specify their sensitivity in terms of quieting, but the idea is the same--we need a certain amount of signal input before it becomes a useful signal to us.

The thing we're fighting against is noise, from wherever it may come. Noise at VHF and UHF frequencies comes from several sources--atmospheric, man-made sources, galactic sources, and the receiver itself. At lower frequencies, conventional short-waves for example, our major contributors to the noise problem are atmospheric and man-made, but as we go higher and higher in frequency, these sources diminish rapidly, until at VHF and above our main problem is with the noise generated by the receiver itself. Try a little experiment to prove this: take a short-wave receiver tuned to a quiet frequency in the neighborhood of 15 MHz and remove the antenna. You will notice a large difference in the noise you hear as the antenna is connected and disconnected. Now try the same experiment with a monitor receiver operating with the squelch fully open. Unless you happen to live in an extremely noisy location you will not be able to detect any difference with the antenna on or off. This shows that at lower frequencies antenna noise is normally much greater than the receiver noise, while at VHF frequencies the antenna noise is much lower, low enough in fact to be completely masked by the receiver noise. Of course, if the weaker signals you want to hear are down in that antenna noise, you can bet your last dollar that you haven't got a ghost of a chance of hearing them! In fact, without boring you with all of the mathematics, it can be said that a signal must be at least 35 DB out of the antenna noise before it can even be detected by a typical Bearcat 210!!

For informational purposes only, a receiver capable of state-of-the-art performance must possess a noise figure of no more than 5 DB, whereas a Bearcat 210 will measure out at almost 26 DB! Now, what does this mean, and what is all this baloney about something called noise figure? Well, to put it very briefly, the noise figure of a receiver or amplifier (expressed in decibels) is the amount of degradation that the receiver will cause to a signal's signal-to-noise ratio. In other words, if our sample Bearcat 210 were connected to an antenna and a signal put on that antenna that was 50 DB above the antenna noise, by the time the 210 was through with it, the signal would only be 24 DB above the noise, the difference of 26 DB representing the noise figure of the receiver. Obviously, the less of this we allow to go on the better off we will be. Any signal less than 26 DB above the antenna noise will be

completely buried by the time it has been run through our receiver. To be blunt, the Bearcat 210 (as well as about 99% of all other monitor receivers on the market) is about as sensitive as a polished boulder!! A sensitivity rating of 0.5 microvolt may be impressive at 15 MHz, but at VHF and UHF it positively STINKS.

However, all is not lost. We can boost the sensitivity (and hence lower the noise figure) of our receiver by simply adding a well-designed preamplifier in front of the input circuitry, but in this area it's best to know just what you're doing since a little knowledge is just enough to make you dangerous. In order to be completely effective, the gain of the preamp in decibels minus its noise figure in decibels must be greater than the receiver noise figure by itself. In other words, a preamp with 20 DB of gain and a 4 DB noise figure will not help an awful lot with our Bearcat 210 because $20\text{DB} - 4\text{DB}$ equals 16 DB and this figure is less than the 26 DB noise figure of the 210. However, a preamp with 30 DB of gain and a 3 DB noise figure would do the trick nicely since $30\text{DB} - 3\text{DB}$ is equal to 27 DB and this is greater than the noise figure of the 210 alone. The 20 DB preamp would be of some help, but the combined noise figure of the preamp and the Bearcat 210--here goes the math again--would be around 8 DB, and we still find ourselves limited by receiver noise. However, applying the same set of formulae to the 30 DB preamp gives us an aggregate noise figure of around 4 DB. Now we're in business! Connect an antenna to a receiver with this kind of performance and you'll be hearing things you never even knew existed! In my own experience I have regularly been able to copy signals in the 150 MHz band from both Las Vegas and the San Francisco Bay Area! Not freak conditions, mind you, but day in, day out, repeatable performance.

If this brief discussion on noise figure and sensitivity has aroused your curiosity, I will be giving a comprehensive lecture on the subject at the June meeting of the RCMA, complete with all of the mathematics and full explanations. If you are able to attend I will do my utmost to answer all of your questions.

-----CHUCK (ORL)

TECHNICAL LETTERS RECEIVED

A lot of my non-synthesized equipment is either home-made or modified and I am willing to share my experience. The Radio Shack pocket weather radios that now sell for \$8.88 can be modified into multi-channel PSB receivers very easily. The VHF Engineering line of kits can be used to build relatively inexpensive scanners with very impressive performance. I have also built the ESP 5 channel pocket VHF receiver and can give valuable construction tips. I can also give you owner's reports on the Tempo MR2 and MR3U units. MICHAEL BOGEN (NY).

I would like to ascertain from any member if they are having the following problems I have with a Bearcat 101. The problem is that at all times, either day or night, I pick up telephone and paging conversations which wipe out the fire or police that I am monitoring at that time. The only way to clear this situation is to place it in manual position and go to another frequency. Also, when you are using the manual position and go from channel to channel, you do not receive conversation. I have the new Radio Shack radio 2001 and have none of the above problems.

Secondly, I was in the Los Angeles area several months ago on vacation and tried to program in on the Bearcat 101, the frequencies for LASO, LAFD, and LACOFD. I received nothing--is this situation normal in the LA area? I was also in the Orange County area and could pick up all frequencies programmed -- what gives?? I am also enclosing frequencies from the Tuscon, Arizona area. ERIC P. GASKELL (AZ03).

(Tech Ed: First problem sounds like severe intermod from a nearby transmitter. On second situation, if you programmed UHF band frequencies for the LA area stations, you would not receive much, as UHF is used infrequently. Try 39.XX LASO, 33.XX LAFD, and 154.XXX LACOFD.)

MISC FREQUENCIES

(14)

SERV	LOCATION	ST	CH	USE	CALL	XMT	FREQ
PD	MILLCREEK	PA	1	DISP;CAR	KGC504	BM	155.1300
PD	MILLCREEK	PA	2	DISP;CAR	KGC504	BM	154.8000
PD	ERIE	PA	1	DISP;CAR	KGA237	R	460.0500
PD	ERIE	PA	2	INV	KGA237	R	460.2000
PD	ERIE	PA	3	DISP;CAR	KGA237	R	460.2500
SP	ERIE CO	PA	A	CAR		M	154.7550
SP	ERIE CO	PA		DISP		B	155.5800
SP	ERIE CO	PA		PAT		M	155.7900
FD	ERIE	PA		DISP	KGB900	BM	154.4300
COFD	MILLCREEK	PA		DISP	KGC973	BM	33.9800
AMB	ERIE	PA		DISP;CAR	KRE248	BM	155.2200
TWR	ERIE INT'L AIRPORT	PA				BM	118.1000
ARR	ERIE INT'L AIRPORT	PA				BM	121.0000
GRD	ERIE INT'L AIRPORT	PA				BM	121.9000
FSS	ERIE INT'L AIRPORT	PA				BM	122.4000
DEP	ERIE INT'L AIRPORT	PA				BM	124.6500

TOM(PA003)

FD	ATLANTIC CITY	NJ			KOJ444	M	153.7700
FD	ATLANTIC CITY	NJ			KOJ444	M	153.9500
FD	ATLANTIC CITY	NJ	F 2	DISP	KOJ444	BM	154.3100
FD	ATLANTIC CITY	NJ	F 3	DISP	KOJ444	BM	154.4150
FD	ATLANTIC CITY	NJ	F 1	DISP	KEB384	BM	154.0250
COFD	ATLANTIC CITY	NJ		DISP	KQO207	BM	154.2650
AMB	ATLANTIC CITY	NJ	F 1	AMB-HOSP	KIU489	BM	155.1750
HOSP	ATLANTIC CITY	NJ	F 2	HOSP-AMB	KIU489	BM	155.3400
PD	ATLANTIC CITY	NJ	F 1	TACT	KEB384	BM	460.1500
PD	ATLANTIC CITY	NJ	F 2	TACT	KEB384	BM	460.4250
PD	ATLANTIC CITY	NJ	F 2	SECD	KGW355	BM	155.0100
PD	ATLANTIC CITY	NJ	F 1	DISP	KEB384	BM	155.1300
PD	ATLANTIC CITY	NJ	F 2	INV	KEB384	BM	155.4150
PD	ATLANTIC CITY	NJ	F 2	COUNTYWIDE	KEB384	B	155.7300
PD	ATLANTIC CITY	NJ		CAR	KGW344	M	156.0900
PD	ATLANTIC CITY	NJ			KGW355	BM	156.2100
RR	ATLANTIC CITY	NJ	F 1	COMM	KJZ961	BM	161.1600
RR	TUCKAHOE	NJ	F 1	COMM	KJY708	BM	161.1600
SP	HAMILTON TWP	NJ	F 1	TROOP A-SOUTH	KEA819	B	44.9400

JOHN(NJ002)

FD	EL MONTE	CA	RED	DISP	KCE468	BM	154.0850
FD	EL MONTE	CA	BLU	SECD	KMK851	BM	154.3700
PD	SAN MARINO	CA	F 1	DISP;PAT	KMA235	BM	156.3300
PD	SAN MARINO	CA	F 2	SECD	KBQ783	BM	155.1000
PD	SAN MARINO	CA	F 3	CLEMARS		BM	154.9200

STAN(CA-LA16)

SO	OKLAHOMA CO	OK					37.2600
HP	OKLAHOMA CO	OK					44.7000
HP	OKLAHOMA CITY	OK					45.2200
PD	OKLAHOMA CITY	OK		NORTH			158.7900
PD	OKLAHOMA CITY	OK		SOUTH			158.9700
PD	OKLAHOMA CITY	OK		DETECTIVES			158.7300
PD	OKLAHOMA CITY	OK		GEN INFO			159.0300
PD	OKLAHOMA CITY	OK		UNK USE			455.3000
PD	MIDWEST CITY	OK				R	460.1250
FD	OKLAHOMA CITY	OK		DISP		R	453.1500
FD	OKLAHOMA CITY	OK		DISP		R	453.6000
FD	OKLAHOMA CITY	OK		TRK-TRK		R	453.3500
FD	OKLAHOMA CITY	OK	F 4			R	453.3000
AMB	OKLAHOMA CITY	OK		AMCARE		BM	153.7550
AMB	OKLAHOMA CITY	OK		AMCARE-HOSP		BM	155.3400
PARK	OKLAHOMA LAKES	OK				BM	151.3000
NWS	CLEVELAND CO	OK		NORMAN		R	171.0000
HAM	OKLAHOMA CO	OK		SEVERE WEATHER		R	146.9200

WAYNE (OK-1)

PD	TUCSON	AZ F 1	UNIFORM;DET	KOA255 R	155.0100
PD	TUCSON	AZ F 2	UNIFORM;DET	KOA255 R	155.7300
PD	TUSCON	AZ F 3	UNIFORM;DET	KOA255 R	154.7250
PD	TUSCON	AZ F 4	UNIFORM;DET	KOA255 R	155.4900
SO	PIMA CO.	AZ F 1	NORTH	KSX374	155.5650
SO	PIMA CO.	AZ F 2	SOUTH	KLX845	155.6100
SO	PIMA CO.	AZ F 3	EAST	KTR555	155.7000
SO	PIMA CO.	AZ F 4	WEST	KTS617	155.5350
SO	PIMA CO.	AZ	INTERAGENCY	KLX924	155.9550
FD	TUSCON	AZ F 1	DISPATCH	KVI548 R	453.1000
FD	TUSCON	AZ F 2	RESPONSE	KVI548 R	453.2000
MED	TUSCON	AZ	MEDS	KUB960	155.2200
COFD	PIMA CO.	AZ		KSQ330 BM	154.3700
FPD	FLOWING WELLS	AZ		KWT785 BM	154.3400
PD	SO. TUSCON	AZ		KOB339 BM	156.2100
FD	SO. TUSCON	AZ		KDZ343 BM	154.2200
DPS	TUSCON	AZ			460.4250
DPS	TUSCON	AZ	INV.		156.0900
DPS		AZ			154.9350

ERIC (AZ03)

SP	SOUTH	NJ CH1	"A"-DISP;PAT	BM	44.9400
SP	CENTRAL	NJ CH2	"C"-DISP;PAT	BM	44.6200
SP	NORTH	NJ CH3	"B"-DISP;PAT	BM	44.6600
SP		NJ CH4	SECONDARY	BM	44.9800
SP		NJ CH5	CAR-CAR	M	44.7800
SP		NJ CH6	MISC ST AGCYS	BM	45.0000
SP	SOUTH	NJ CH7	"A"-STA-STA	B	154.9200
SP	CENTRAL	NJ CH8	"C"-STA-STA	B	155.4450
SP	NORTH	NJ CH9	"B"-STA-STA	B	155.4600
SP	NJ TURNPIKE	NJ	"D"	R	155.1900
SP	NJ PARKWAY "GARDEN STATE"	NJ	"E"	R	154.9050
SP		NJ	EXTENDERS-A,B,C	M	154.6800
PD	MT OLIVE TWP	NJ		BM	39.0200
PD	MT OLIVE TWP	NJ		BM	39.1600
PD	ROXBURY TWP	NJ		BM	39.0200
PD	ROXBURY TWP	NJ		BM	39.1600
PD	CHESTER BORO	NJ F 1	PRIMARY	BM	45.9800
PD	CHESTER BORO	NJ F 2	SECONDARY	BM	46.0200
PD	CHESTER TWP	NJ F 1	PRIMARY	BM	45.9800
PD	CHESTER TWP	NJ F 2	SECONDARY	BM	46.0200
PD	MENDHAM BORO	NJ		BM	39.0200
PD	MENDHAM TWP	NJ		BM	39.0200
PD	RANDOLPH TWP	NJ		R	45.1000
PD	MINE HILL TWP	NJ		R	45.1000
PD	ROCKAWAY BORO	NJ		R	45.1000
FD	MT OLIVE TWP	NJ	& RES ALERT	BM	45.6000
DD	ROXBURY TWP	NJ	& RES ALERT	BM	45.6000
FD	CHESTER BORO	NJ	& RES ALERT	BM	46.4200
FD	CHESTER TWP	NJ	& RES ALERT	BM	46.4200
FD	MENDHAM BORO	NJ	& RES ALERT	BM	45.6000
FD	MENDHAM TWP	NJ	& RES ALERT	BM	45.6000
SO	MORRIS CO	NJ	& PROSECUTER	BM	45.9000
PARK	MORRIS CO	NJ	POLICE	BM	39.0200
RES	MT OLIVE TWP	NJ		BM	39.0200
RES	ROXBURY TWP	NJ		BM	39.0200
RES	CHESTER BORO	NJ		BM	45.9800
RES	CHESTER BORO	NJ		BM	46.0200
RES	CHESTER TWP	NJ		BM	45.9800
RES	CHESTER TWP	NJ		BM	46.0200
RES	MENDHAM BORO	NJ		BM	39.0200
RES	MENDHAM TWP	NJ		BM	39.0200

GLENN (NJ008)

PD	MONTEREY	CA	DISP;PAT-"3"	WSZ35 R	155.4900
PD	DEL RAY OAKS	CA	DISP;PAT-"9"	WSZ32 R	155.4900
PD	CARMEL	CA	DISP;PAT-"4"	WSZ31 R	155.5350
PD	PACIFIC GROVE	CA	DISP;PAT-"5"	WSZ33 R	155.5350
PD	SEASIDE	CA		KEC559 R	155.6850
PD	SEASIDE	CA	DISP;PAT-"6"	WSZ34 R	155.4900
PD	MARINA	CA	DISP;PAT	WCA922 R	158.8350
PD	SALINAS	CA	DISP;PAT	KTS764 R	460.1750
PD	SALINAS	CA	CAR-CAR	M	460.3750
SO	MONTEREY CO	CA	DISP;PAT	R	159.0900
SO	MONTEREY CO	CA	SECD	BM	159.2100
FD	MONTEREY CO(& ALL CITIES)	CA	DISPATCH-"2"	BM	154.3700
AMB	"A-1"(MONTEREY CO)	CA	AMP-HOSH-"8"	BM	155.3250
LAW	MONTEREY CO	CA	SECD;ALT;PRKG	BM	158.8500

MIKE (CA-OR5)

This month's law is from the State of Indiana, submitted by DAVE (IN2). It's most interesting to note that this one of the more stricter laws in a state that is the home of the two top monitor manufacturers, Regency and Bearcat(Electra).

We need more arti les of this type. Several members are planning trips this summer and would like to know what laws are applicable in the states they will pass through. Also, if you have copies of any local ordinances restricting any type on monitoring, write this column. We plan to build up a library of this information to provide members with all the data on legalities involved anywhere that they are interested in.

INDIANA MONITORING LAW

137. POLICE RADIO--MONITOR--SCANNER--(a) A person who knowingly or intentionally possesses a portable police radio commits unlawful use of a police radio, a Class B misdemeanor. (b) This section does not apply to:

- (1) a governmental entity;
- (2) a regularly-employed law enforcement officer;
- (3) a common carrier of persons for hire whose vehicles are used in emergency service;
- (4) a public service or utility company whose vehicles are used in emergency service;
- (5) a person who has written permission from the chief executive officer of a law enforcement agency to possess a portable police radio;
- (6) a person who holds an amateur radio license issued by the Federal Communications Commission;
- (7) a person who uses a portable police radio only in his dwelling or place of business;
- (8) A person:
 - (A) who is regularly engaged in newsgathering activities;
 - (B) who is employed by a newspaper qualified to receive legal advertisements under IC 5-3-1, a wire service, or a licensed commercial or public radio or television station; and
 - (C) whose name is furnished by his employer to the chief executive officer of a law enforcement agency in the county in which the employer's principal office is located; or
- (9) a person engaged in the business of manufacturing or selling portable police radios.

(c) "Portable police radio" means a radio receiving set that is capable of receiving signals transmitted on frequencies assigned by the Federal Communications Commission for police emergency purposes and that:

- (1) can be installed, maintained, or operated in a vehicle; or
- (2) can be operated while it is being carried by an individual.

The term does not include a radio designed for use only in a dwelling.
IC 1977 35-44-3-12

STATES-COUNTRIES

ALABAMA	2	LOUISIANA	1	OHIO	5
ARIZONA	4	MAINE	1	OKLAHOMA	1
ARKANSAS	1	MARYLAND	5	OREGON	2
CALIFORNIA	278	MASSACHUSETTS ..	4	PENNSYLVANIA ..	7
COLORADO	2	MICHIGAN	6	RHODE ISLAND ...	1
CONNECTICUT ...	2	MINNESOTA	2	SOUTH DAKOTA ...	1
DELAWARE	1	MISSISSIPPI	1	TEXAS	4
FLORIDA	5	MISSOURI	2	VIRGINIA	5
GEORGIA	1	MONTANA	1	WASHINGTON	1
IDAHO	1	NEBRASKA	1	WEST VIRGINIA ..	1
ILLINOIS	13	NEVADA	2	WISCONSIN	3
INDIANA	3	NEW HAMPSHIRE ..	3		
IOWA	3	NEW JERSEY	11	ARUBA, NETH ANT	1
KANSAS	1	NEW YORK	16	BERMUDA	1
KENTUCKY	1	NORTH CAROLINA ..	5	CANADA	6

TOTAL: 421 MEMBERS IN 41 STATES AND 3 FOREIGN COUNTRIES

CALIFORNIA

ALAMEDA	3	SAN FRANCISCO ..	3
CONTRA COSTA ..	1	SAN JOAQUIN	1
KERN	1	SAN MATEO	3
LOS ANGELES ..	118	SANTA BARBARA ..	2
MARIN	1	SANTA CLARA	2
ORANGE	94	SHASTA	1
RIVERSIDE	15	TULARE	1
SACRAMENTO	1	VENTURA	5
SAN BERNARDINO..	11	YOLO	1
SAN DIEGO	14		

TOTAL: 278 MEMBERS IN 19 COUNTIES

(NOTE: Regretably, we had to drop 5 members for non-payment of dues. These individuals were given up to 6 months grace period prior to deletion of their names from our directory.) KARL (OR22)

RCMA-AMATEUR RADIO OPERATORS who are interested in talking on the air with other RCMA hams:

K4PBN, David, "I would be interested in schedules or nets for monitor listeners.

My main operating bands are 75 and 40 meter SSB. I doubt that I could do any good getting into the west coast areas on those bands but perhaps I could QSO with other interested stations in the Eastern U.S. I operate 2 meters here but the guys are hung up on SSTV and Computers, which I know nothing about. I can't generate any scanner listening interest with them, but I find it fascinating. My main operating times are between 6PM and 10PM CST. On weekends I can operate almost anytime during the day."

K7RDH, Bob (AZ 2), "Great idea about a list of hams other than the Directory! I operate 10 M SSB primarily but capable of 10-75 M. Have no 2 M-FM gear except receiver. I'm available anytime on Monday & Tuesday, and after 0030Z other evenings."

VE7BFB, Rick (CAN 2), "I support a ham net or QSO with fellow RCMAers. Can work 40, 20, 15 SSB & CW 1800 to 2400 GMT. Am on different shifts every so often, so don't have a definite time or freq available."

WD6AWP, Tim (OR 72), "Sounds good, let's get together on the air and talk about our monitoring hobby. Any freq 80 through 2 M (except 6) is OK with me."

K6JHQ, Iden (R 1), "2 meter synthesized with beam, not on regularly but sometimes monitor Crestline, .34/.94. Have 80-10 M SSB & CW capability with all band inverted V & Yaesu FT-101B. Prefer to limit operating on the HF bands during evenings due to TVI."

Certainly there must be more hams in RCMA who would like to put themselves on this list. Send info to RCMA P.O. Box or, better yet, to K6JHQ via the callbook.

INFORMATION EXCHANGE

I I have info on the RTTY and satellite communications used by news media, military, and commercial. Please advise those members to contact me.
RICK MATTHEW (CAN2), 2972 W 2nd Av, Vancouver, BC, Canada V6K 1K4

I One can look through our Membership Directory and notice many ham call letters. I would like to propose the compilation of a list of RCMA hams who are interested in talking on the ham bands about monitor related subjects. Of course we can't talk about specific things we've heard but we can talk about receivers, antennas, legislation, the RCMA, and probably to some extent about frequencies and systems. If you are interested, please send your name, call, frequency choice, frequency and mode capabilities, and best time. I will be happy to compile the info and either give it to our Newsletter Editor or send copies of the list to all those who submit info. Two meters offers a terrific opportunity for us to communicate here in Southern California and in some of the other areas where hams are within repeater distance or, better yet, simplex distance. The HF, CW, & SSB bands can bring us together whether we live close or mon. Give it some thought and send the info in. Send to the RCMA PO Box in care of me or use the callbook. IDEN(R1) K6JHQ

I Lost due to 459(Burglary): Realistic PRO-5 4 channel UHF Pocket Scanner Catalog #20-169, Serial #405374 w/ 4 Radio Shack Nickel-Cadium batteries, Russell "rubber duckie" UHF antenna w/ pin plug and crystals for 460.025, 460.100, 460.250, 460.275. If seen call your PD or PETE COYLE (OR13) 714-897-2086 or 714-898-7311

Is there anyone in the Metro LA area that tapes LAFD and would be interested in trading tapes of greater alarm fires? ED RYON (AL1)

For RTTY info by news media, etc., see article I had published in Sept. 1977 73 Magazine. WEBB (NJ). (Ed. Note: Copy of article received is too lengthy--7 pgs.--to reproduce here.)

If anyone has information (either additions or corrections to the info listed on Page 12 of this issue) on the State of Texas radio systems, please contact me. KEN PEHL (TX3), 108 E. Centre St., Fredericksburg, TX 78624

I plan on taking a trip to Wisconsin in a couple of months and when we go we always take about a month to get there. I need the State Police of Nebraska and of the counties bordering Interstate 80. ROBERT LAZICH (SD13), 1783 Crofton Ln., Escondido, CA 92027

I would like to communicate with anyone who is interested in aircraft scanning. I'm new to this area, but need some questions answered before getting really involved in it. GUY A. KROGER (IA002), 211 S. Fawcett, Sioux City, Iowa 51103

If anyone can locate and/or obtain a location in the Los Angeles area to hold alternating meetings for the RCMA, please call DAVE (LA1) or write to the RCMA, PO Box 4563, Anaheim, CA 92803. DANNY (OR4)

Anybody interested in a tour (again) of the FAA facility in Palmdale, CA please write in. However, be advised that they no longer conduct tours on weekends. If enough people respond, we may be able to work something out on a time slot. If interested, please also indicate days and times that you would be available. JERRY (OR2)

I 151.265 appears to be a handy-talkie frequency for officials of the National Football League. Have any other members heard anything like this on this or any other frequencies? RICK (NJ1)

WANT ADS

FOR SALE-

Regency R20, 20 channel scanner, excellent condition, 9 months old; with following crystals, 151.325, 151.385, 151.265, 46.14, 46.34, 42.54, 42.24, 162.55, 155.565, 155.790. \$130. J. M. WRIGHT (R7), 236 Myrtlewood Drive, Calimesa, CA 92320 714-795-5894

Two (2) Regency model ACT-R 20/6 "executive model" scanners, twenty channels, six bands, AC-DC complete with mobile power adaptor. Both units are without crystals. Asking \$150 each. Will ship via UPS. DAVID MC LAREN, (ILL2), R.R. #2, County Line Road, Rock Falls, IL 61071 815-626-5443

- I Sonar FR-105. Six crystal positions for 150--174MHz. Radio excellent, shows wear on exterior. Complete w/ AC-DC power cords, mounting gimbal, manual and following crystals: 154.190, 154.355, 155.475, 155.610, 155.790, 162.550. \$50.00 postpaid. PATRICK W. PAKES (), 1152 Keith Av, Berkeley, CA 95708, 415-548-6378
- I SBE Model 12M Opti-Scan 10 channel tri-band scanner w/ 6 cards & code book, AC-DC. \$200.00. Antenna Specialists MON-34 signal splitter for above radio \$15.00. Teaberry T-Scan UHF 4 channel pocket scanner w/ 4 crystals included (choose from the following: 460.025, 460.100, 460.150, 460.325, 460.175, 460.400, 461.900). \$70.00. Both radios like new--in original boxes. RICHARD BUSH (OR70), 1101 N Oakmont, Placencia, CA 92670 714-996-4147 or 714-528-2274
- I Midland 4 channel pocket scanner Model 13-904(150--174MHz) w/ case, flexible antenna, manual. \$45 00 (Will ship UPS). Crystals: 153.950, 154.040, 154.130, 154.250, 154.295, 154.340, 154.400, 154.430, 155.670, 162.550, 39.82. \$1.50 ea. Antenna Specialists tri-band base antenna. \$5.00 (Cannot mail) TOM (LA100), 18411 Bainbrook Ct, Cerritos, CA 90701, 213-926-4045
- I Regency-type scanner crystals: 39.46, 42.52, 42.56, 42.60, 154.680, 154.905, 154.935, 155.370, 155.460, 155.340, 155.325, 155.250, 154.370, 33.10, 458.150, 453.625. \$2.00 ea, or \$15.00 for all 17. DAVE MC LAREN (ILL2), RR #2, County Line Rd, Rock Falls, IL 61071
- II RACAL HF antenna filters (RA6397A). Provide automatic preselection (1-30 MHz) for A6217 -B-D-E, RA17UA, RA6117 receivers. 19" rack mount. Current list over \$1800. Used, checked, clean \$100; UPS and full documentation included. Write/call for full specifications. WEBB Box 157, Morris Plains, NJ 07950 (201) 267-1299
- II BEARCAT 210 - Mint condition. Only \$195 or offer. STEVE HANDLER (IL1), 3330 Old Mill Rd., Northbrook, IL 60062 (312) 498-1403 - Nights (312) 433-2802 - days.

WANTED-

Crystal controlled receiver that has been retuned to cover the 406--416 MHz band (to be used for USFS and military communications). RON (LA60) PO Box 2873, Lancaster, CA 93534

- II RACAL, CEI, WJ, Frederick receivers/accessories wanted, dead or alive. Trades? WEBB , Box 157, Morris Plains, NJ 07950 (201) 267-1299

PUBLICATIONS

Bearcat Operating Frequencies--local freq guides in Zip Code Groupings
Electra Company,
FREE (write or call "Betty Bearcat", for free phone freq info & lists)

CB Guide--Scanner Scam--two to three page monitoring column
CB Guide, Subscription Dept., 9420D Activity Rd, San Diego, CA 92126
\$1.25 per copy/\$11.25 per year--monthly

CRB Comm Directories--local freq guides & regional speciality listings
CRB Research Inc., POB 56, Commack, NY 11275
\$3.00 per copy (for most lists, some \$4.00 & \$5.00; send SASE for catalog)

Police Call--Radio Directories--regional volumes for public safety, etc.
US Radio Data, Dept. W. Lebanon, NJ 08833
\$4.95 per copy--annual (9 vols for 48 states; add \$1.00 for mail order)

Police Call--Southern California Detail Edition--local system/channel details
California Radio Communications Co., POB 35102, Los Angeles, CA 90035
\$5.50 per copy--annual

Radio Waveguide--San Diego--local system/channel details
Scanner Master Co., 4265 35th St, San Diego, CA 92104
\$6.25 per copy--annual

"Signal 10-11"--Manual for Monitoring the Calif Hwy Patrol--system/ch details
Communications Research, 1971 S St College Bl, Anaheim, CA 92805
\$5.25 per copy (add \$1.00 for mail order)

RCMA OFFICIALS

BOARD OF DIRECTORS

RCMA PRESIDENT

DAVID A. HEYWOOD (LA1)
213-943-8612

VICE-PRESIDENT

DANIEL MC LEAN (OR4)
714-995-6336

SECRETARY

GEORGE KASHNER (OR41)
714-540-9061

TREASURER

KARL PAGEL (OR22)
714-772-5451

MEMBER AT LARGE

JERRY SHORT (OR2)
714-772-1259

STAFF MEMBERS

MEMBERSHIP OFFICER

GEORGE POND (SB8)
714-665-9447

SERGEANT AT ARMS

PHILLIP E. BETTENCOURT (OR9)
714-554-0922

ANARC REPRESENTATIVES

IDEN ROGERS (R1)
714-688-1168

JERRY SHORT (OR2)
714-772-1259

DON JONES (OR14)
714-524-5730

NEWSLETTER STAFF

CHIEF EDITOR

MICHAEL L. FOSTER (OR5)
714-827-0896

NEWS EDITOR

BARRON BROADSTON (OR21)
714-529-7259

TECHNICAL EDITOR

DON JONES (OR14)
714-524-5730

FEATURES

- **** RCMA MEMBER, JEFF SCHAEFER (OR55)
PASSES AWAY...(SEE ARTICLES)
PAGE 1, 3, 5
- **** DEA ARRESTS MONITOR/CONFIDENTIAL
TRANSMISSIONS...(SEE ARTICLES)
PAGE 2, 9
- **** NEW BEARCAT/ELECTRA SCANNER CLUB?
....(SEE ARTICLES)
PAGE 2, 5

THIS MONTH

COLUMNS

MESSAGE FROM THE PRESIDENT...	Page 1
NEWS ITEMS.....	Page 2
RCMA CLUB NEWS.....	Page 4
EDITORIAL PAGE.....	Page 5
CORRESPONDENCE.....	Page 6
FEATURE ARTICLES.....	Page 10
TECHNICAL NEWS.....	Page 12
MISC FREQUENCIES.....	Page 14
MONITORING AND THE LAW.....	Page 16
MEMBERSHIP.....	Page 17
INFORMATION EXCHANGE.....	Page 18
WANT ADS.....	Page 19
PUBLICATIONS.....	Page 10
CALENDAR.....	Page 4

RCMA
POB 4563
ANAHEIM, CA 92803
FORWARDING AND RETURN
POSTAGE IS GUARANTEED

RUSH ---- ITEMS OF NEWS VALUE

BULK RATE
U. S. POSTAGE
8.4¢ PAID
ANAHEIM, CA 92803
PERMIT NO. 397